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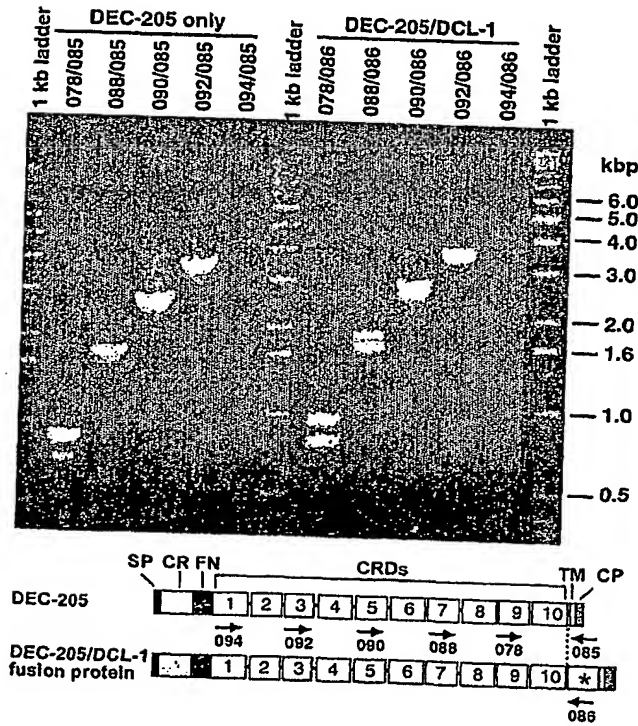


Figure 2

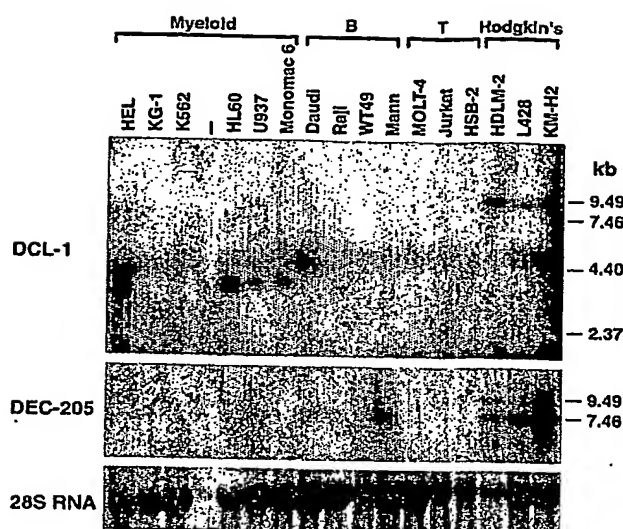


Figure 3

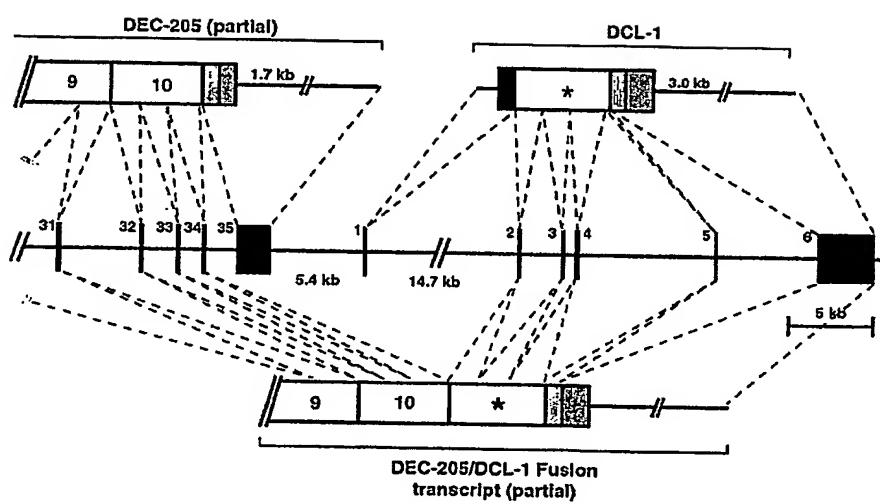


Figure 4

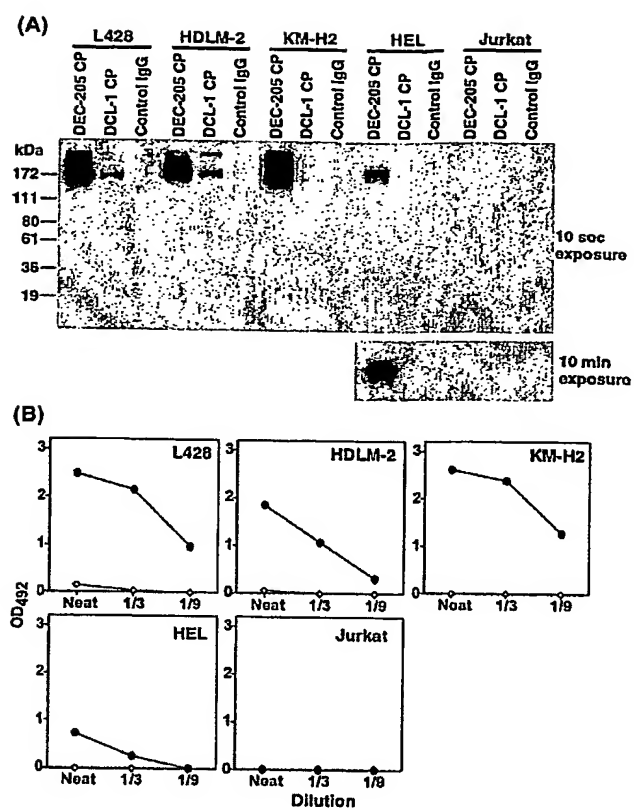


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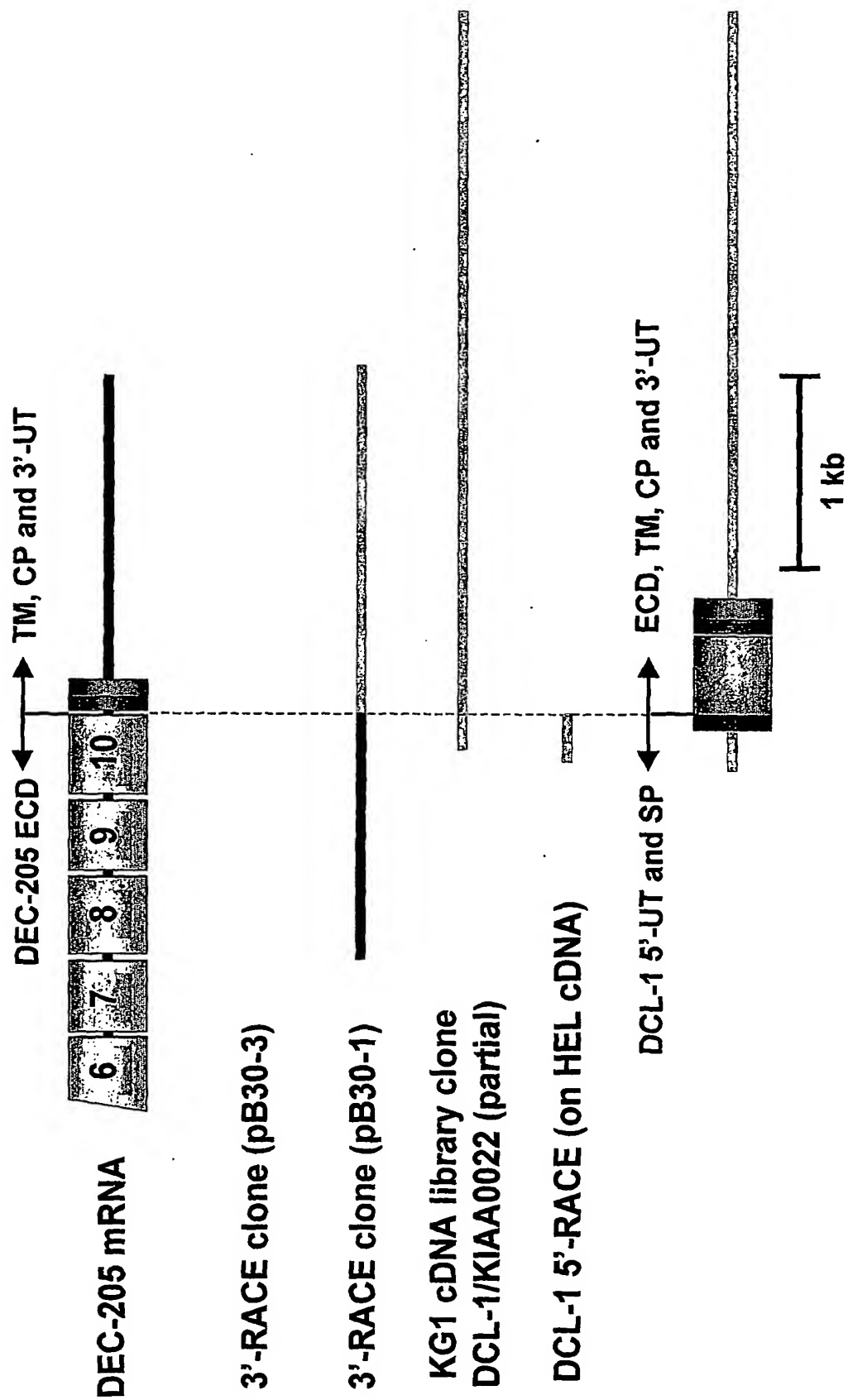
Figure 6

Figure 7

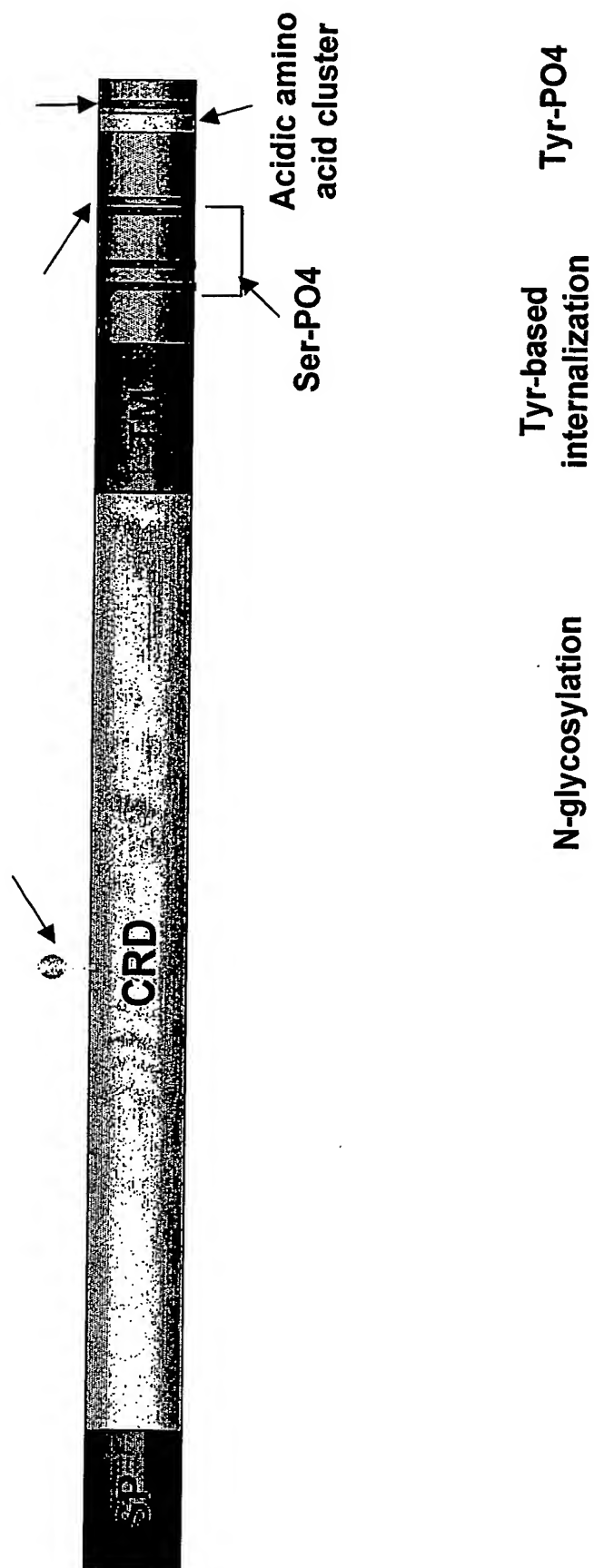


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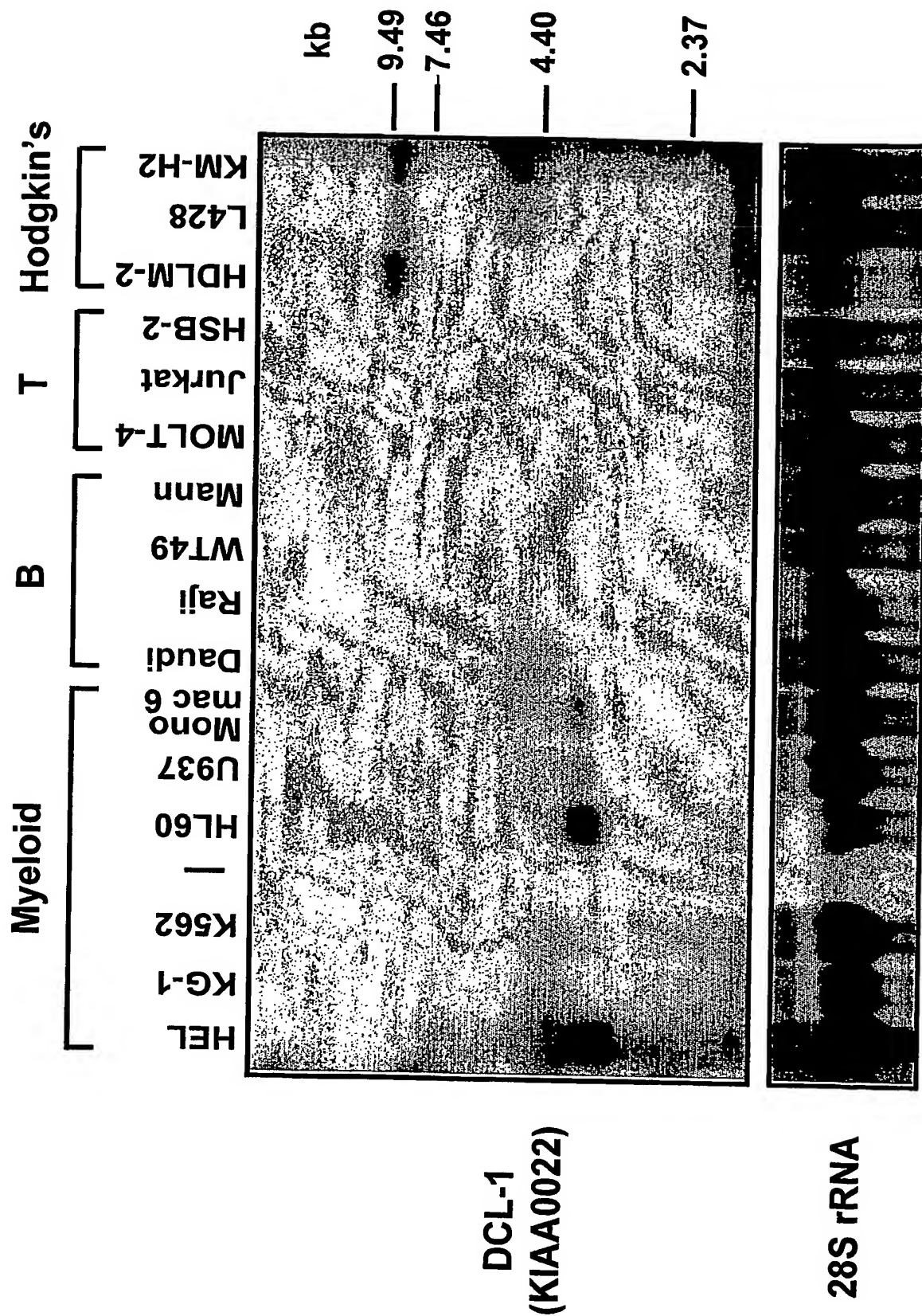


Figure 9

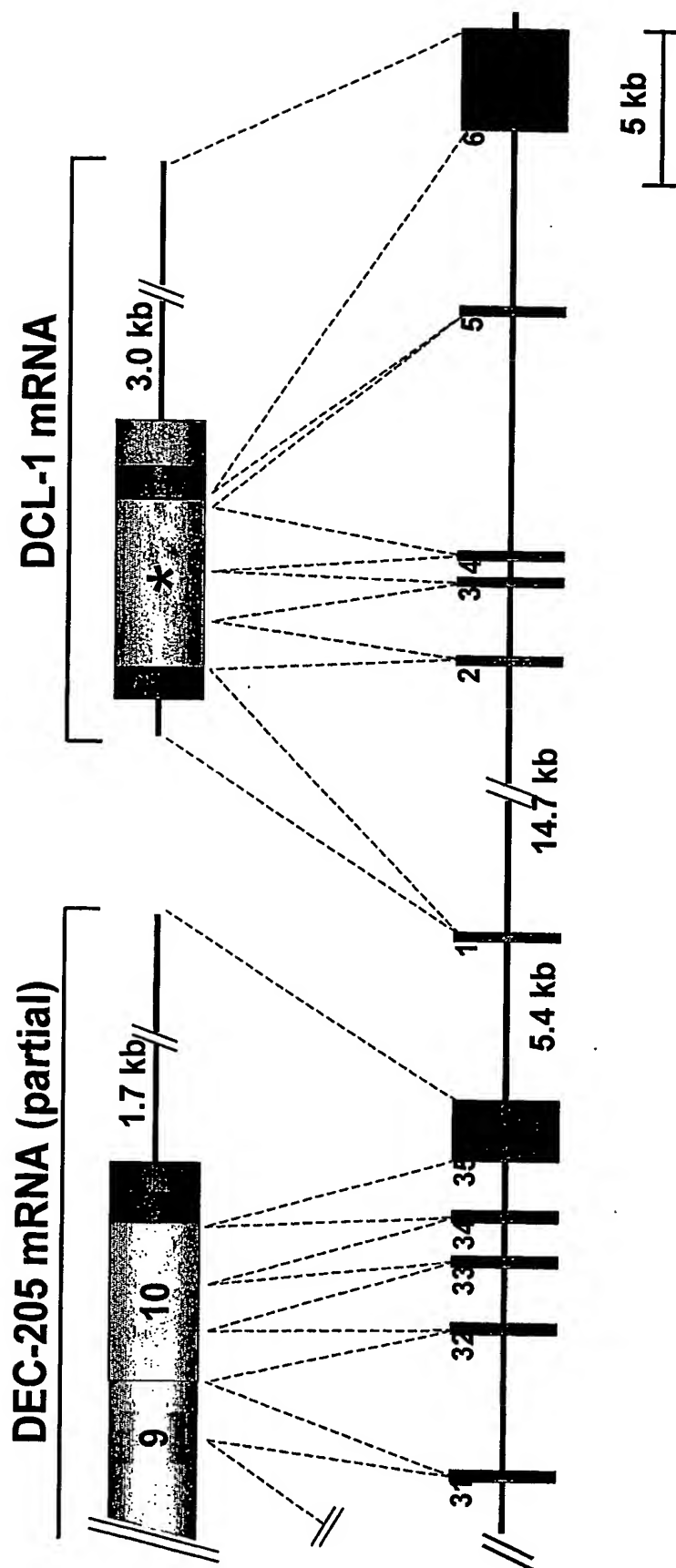


Figure 10

FLAG-DCL-1 expression vector

CMV or EF-1 α promoter



FLAG-DCL-1-Ig fusion protein expression vector

CMV promoter



Figure 11

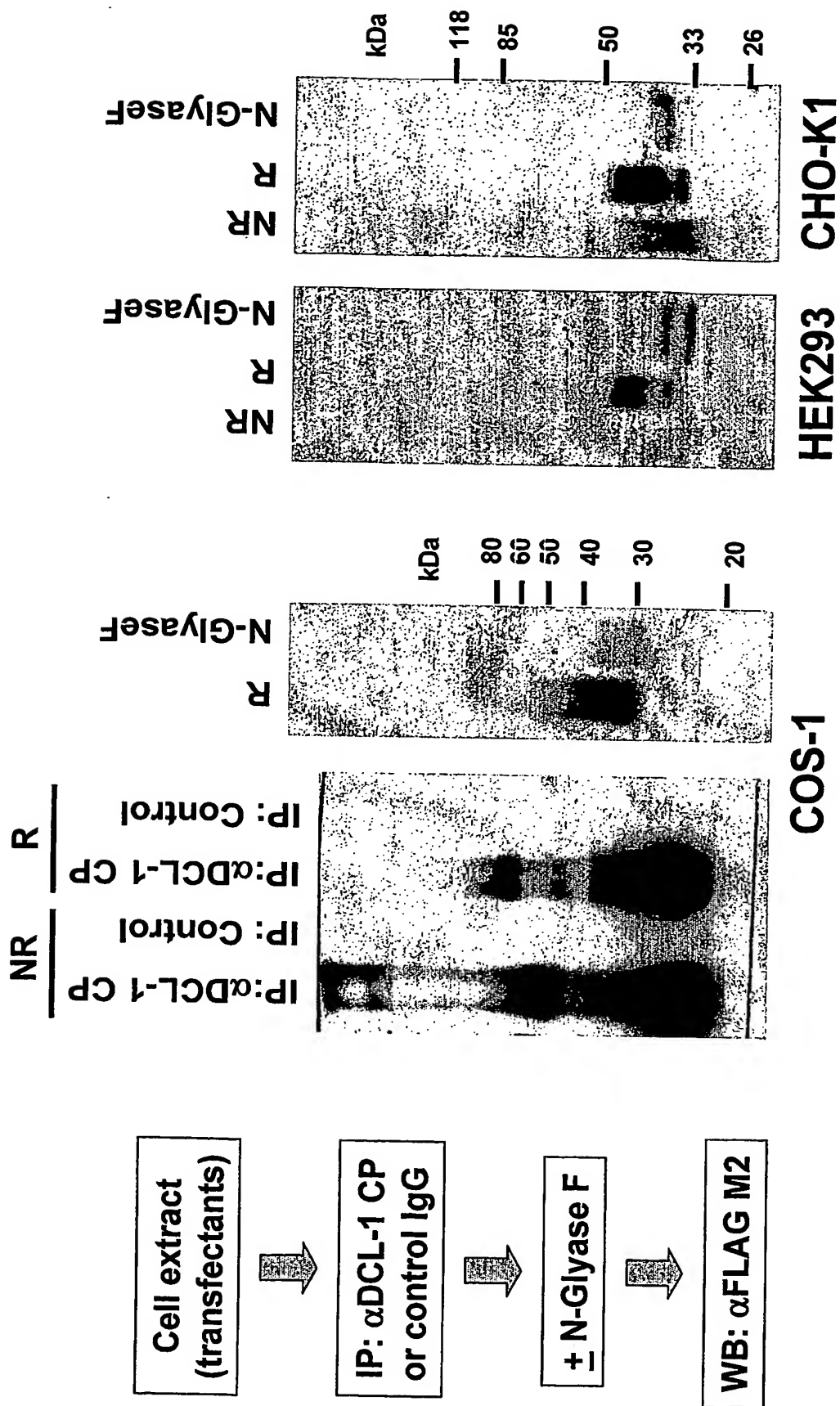
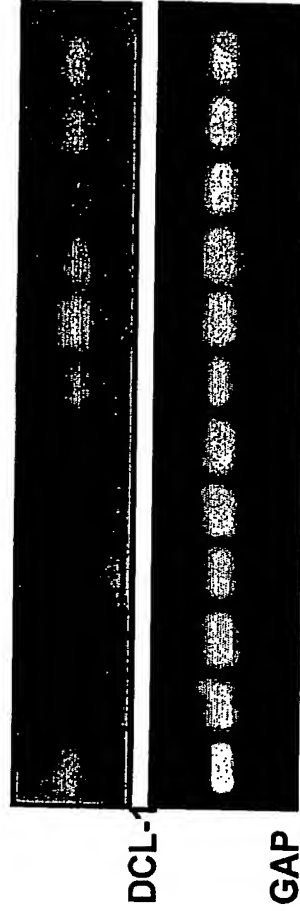


Figure 12

RT-PCR

PBMC
CD3+ T (PBMC)
CD3+ T (tonsil)
CD19+ B (PBMC)
CD19+ B (tonsil)
CD16+CD56+ NK
Granulocytes
CD14+ Monocytes
Macrophages
MoDC
CD11c+ BDC
CD11c- BDC



IP/Western

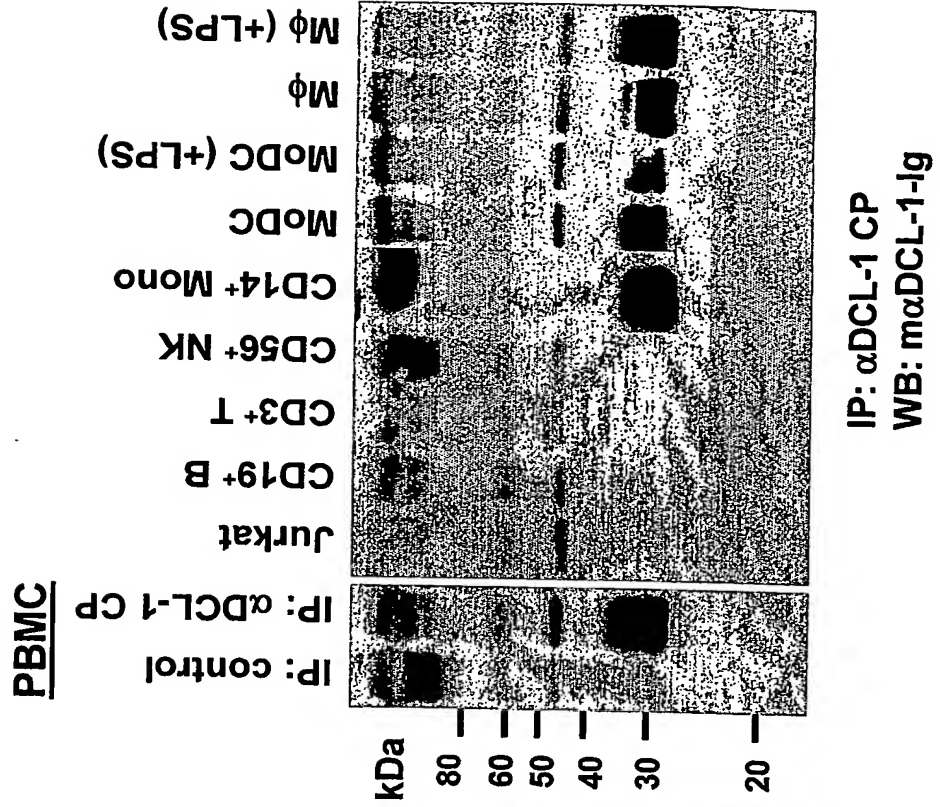


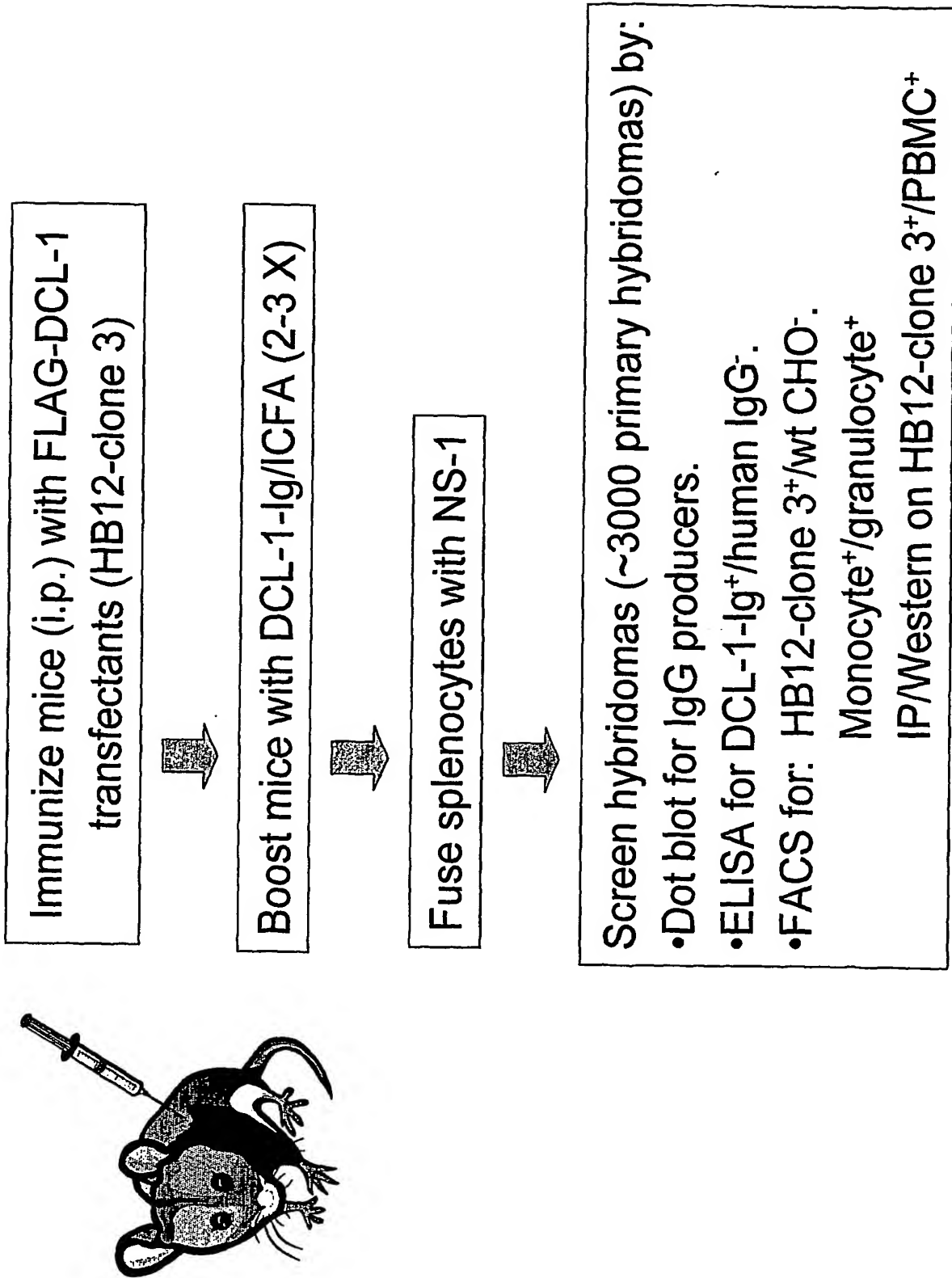
Figure 13

Figure 14

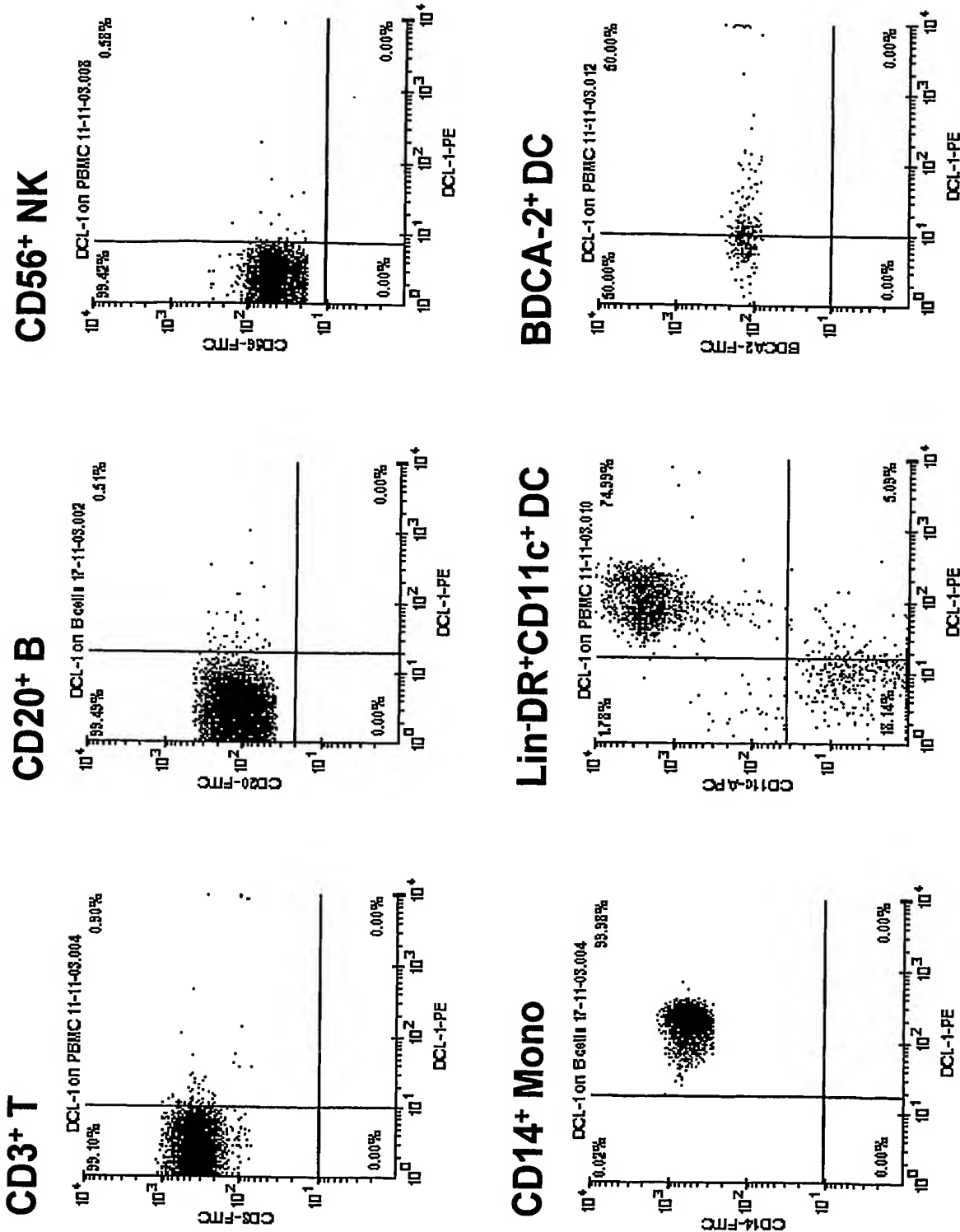


Figure 15

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Figure 15 (cont'd)

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Figure 15 (cont'd)

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Figure 15 (cont'd)

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 11701 aataaatcaa ggtcacatat tataattttc agggtagcta ctacagaaaa aaaattaaag
 11761 aatatataat taacaagcta aaagaaaaag gatcaaatat aaaatgttta atacaaaaa
 11821 gacaataaat gagaaaaaag gaacataaaa taagtaggac aaatgaaaa caaatattaa
 11881 gatggtagat ataaactcca attcatcgta actacattaa gtattactgg aaatacttca
 11941 attaaaagac aaaggatgatc aagctggatt taacaaaaaa ctacttgctg cttgcaagaa
 12001 ttataactac ttagaaaaag tgtttggcag tatctgtgaa agctgggcac atgcatactc
 12061 gatggcccca gcaatctact tctacaaagg tactcacaag aagtatgcat agaattgtta
 12121 aagcagcatt acaatggcca caaactagaa actacccaaa tattcatcaa cagaagaatg
 12181 aataagttct tagataagtc ttaaataaaa tgatttttaa agtaacattt atcaaaagaa
 12241 gccagacaca aaagagtaca caatgtatga ttccataact ataaagttca aaaacaggca
 12301 aaactaatcg atggtgttag aagttagggt agagatgacc tttggaaggg atggtgagca

Figure 15 (cont'd)

12361 aaagggggtta atgttctgtt cctcattcct ctgataatta tatgggtatg tttactttat
 12421 aaaaaattca ccaaaaaata aaagaaaaaa gaaaaaaatt caccaacctg tatattttatg
 12481 acttgtgcat tgcattgtatg ttttatttga ataaaaagtt tagtttttaa aaagtgtatc
 12541 aggaaaggta ttagaattgg cagcaaggtc aattcagtta tatttttagta tgtaagaaac
 12601 ttggccgggc gcagtggctc atgcctgtaa tcccagcact ttgggaggcc aaggtggccc
 12661 aatcaccaga ggtcaggagt tcaagaccag cctaaccaac atggtgaaac cctgtctcta
 12721 ctaaaaatac aaaaatttagc tgggtgtggt ggcgggagcc tgtaatocca gctattgggg
 12781 aggctgaggc aggagaatca cttgaaccca ggaggcagag gttgcattga gctgagatcg
 12841 cgccactgcc ctccagcctg ggcgacagag tgagactctg tctcaaaaaa aaaaaaaaaa
 12901 aaagaaaaag acaacatgct tcaagaagga aaggttgaac ccacaggga agggagtgtt
 12961 tgaagatgct gaagagatga taaattaagc tacttaagga caaataagag gattcattca
 13021 ttcagctgaa tatttttaagt ccctattata atccaagagc tatctgaggt gtttaggaatc
 13081 caaaaattaa taaggcttag tccctatttt tagagtggtc actgtccagg agcaaaagat
 13141 gccaatgatg atgtctgtaa aaactacata tttttaatac tttccttgta cgagacactg
 13201 tgctgtgcag gtttgcagta tcttacctga tatttacaac aatccaatga ggtagatggt
 13261 atctcccttt tctgatgaa acacaggaaa taatataagt tttccaaggt ctaccacca
 13321 agataaaaaac ataagtctgt ctgacgttaa agccgtgttc ctgctggtag tttacactgc
 13381 cattggatgg tgtgtggtta catgcaacag tcacaatcaa ttctagtggg gatgtcttgg
 13441 agaagggtgg atagatggcc tgagcctcaa aggatgagca gacagagaat aatgtttgat
 13501 ggcctggaag tggatttgaa ggaagaagag tcttttctct gaataaaggc cagattttca
 13561 aagaagggtg cagaaatgta taatgaacct gagacgactg agtgctgttt ctcaaggaaa
 13621 ggatctacct gctccatata cagactttca accaagtgtc ttgttttcag accttctctc
 13681 tacaaagctg tctggcgtct ccaattcctg actctgttct ggacttcttt gctttgtaaa
 13741 tgttgggtatc atgtaatttt atagccagat tgttttaatg tttcataatg aacattttcc
 13801 caaagcaaac tgcttgttgc aaaacaaccg tatctttaag ccagcattgt gggagagttc
 13861 tagattcctg ccagagttaa acccaaggta gtcatatgtg taattcaagt gtcataaaa
 13921 cagctggaag gaaaaaaaaat ttggatataa aataaattat aggtggggca cagtggctct
 13981 cacttgtaat ccagcactt cggaagccca aggtgggaga attgctgagc ccaggagttc
 14041 cagagcagcc tgggcaacat agcaagacct tgtctctaca aaaaaattaa aaaattagcc

Figure 15 (cont'd)

14101 ggggtgtagtg ttgtgtacct gtaatcccag ctactcagga ggcggaggca caagaatcac
 14161 ttgagcctgg gaggcggagg ttgcagttag ccaaggtcat gccactgcac tctagcctgg
 14221 gtgacagagt aagactctgt ctcaaaaaaa aaaaaaaaaa aaagtctgta cggatacagg
 14281 gagcacactg cttcctttta aaggcaagac cgctatgttg aacattccac ttctgctaaa
 14341 ccctaattat ccagaagtta taagactgcy aagcaatcta gcttggtggc catgtgctct
 14401 gtgctatata agaagctgag gtcagtactg gggacaacca atgctctctg ccatattctg
 14461 agcttagtaa acttgagagt gttgaattaa tttagattaa ttagctgat tggtaaattc
 14521 tgatctttgt ggtagggctt gcttctactt gtttatatta aaaaggtaat gcagaactta
 14581 ggcctggcgt ggtggctcac acctgttatt ccagcagttt aagagaccaa ggcgggtgga
 14641 tcgcttgctg ttaggagttt gagaccagcc tgggcaacgt ggcgaaacct tgtctctaca
 14701 aaaaatacaa aagttagccg ggcattggtg cacatacctg cagtcccagc tacacggaac
 14761 gctgaggtgg gaggatccct tgagcccagg aggagaggc tgcaagttagc tgagatcgcg
 14821 ccaactgcact ccagccagga cgacagtaca agatcttctg tcaaaaaaaaa aaaaaaaaaa
 14881 aaaaaaaaaa cagaacttaa aacataaaat tgctacatat ttatatagat gaaatcacta
 14941 agatttttac ctatatacaa acctaacaga atatggacgc ttactgcttt gtacttcttt
 15001 attcactgga attaaagtaa attctctttc ctttttggcc agtgaaatca actcttgtag
 15061 gggttactttt gcttttaata ctaaccaatt aaattctaga gcctaggctt aaaaatgcaa
 15121 atctttataa taaaaagaga ctaagataga ggtgaaggag atgtcccttt agagcagtag
 15181 aggaagagtt atggttctat ttcattgaac tacctcaaat aatctacttt gatgaggtgt
 15241 taaattaaga acattcataa gaacatcaat cttgttttcc tgtgcaatat gaaaacttgt
 15301 gtgaatatatt ataggctagc aacttgtttt tcttttctct gttcttgtag gtataatttg
 15361 aacaacaggg ccttgtaaaa gtcttaagac ttttgaaatt gttaaatact gcaaagataa
 15421 ccttcaaaga gaagtgtgta atcctgattg gctgtcttct agatagtttg ttgccttggt
 15481 gataacacta atttacatgt ctgaattcct aaacaaccta aaaacttgta tctttgctct
 15541 gtaaagtcag aagagaatca ttggcacatt tctcttttcc cgtatgaata atggagagaa
 15601 acaaattcct gttacactgg ttgatttctt attttaataa agatttaaca aaggaaattg
 15661 cctttgtgtg tgtgtgaaaa tttagtatct aatatcctta tctttgggaa ttcattgta
 15721 tctttttctc aagttattta acagtgttct tcttttttct acatagACTG TCCTTCATCT
 15781 ACTTGGATTC AGTTCCAAGA CAGTTGTTAC ATTTTCTCC AAGAAGCCAT CAAAGTAGAA
 15841 AGCATAGAGG ATGTCAGAAA TCAGTGTACT GACCATGGta aaaggcttat tcttttctgt

Figure 15 (cont'd)

15901 ttgttttttc acaaattagt gaacagtgtt cattaatttc tttaaaaatt gattttgtca
 15961 catctgactt ttaactgggt cctgagatgt aatgtacaac ttttatttga caacacacaa
 16021 gctacaggca gtggaattgg gtatatatgt aatcctggag ttggaagaca gttgttggac
 16081 aatattgtcc aaagcagggt ctattttaaca tgcatatcct gtgccaggca ctgtgcttaa
 16141 gcacctcata tactttacct ggctttatca taacaaacct atcaagtagt gtattattat
 16201 cattttattg agagatgaaa ttaacttcag ttatttgttc aagcttacac aggaaataat
 16261 tgacaaagcc aggattttta cccagatctg ttggatttta ggcttagagt tcttaatcac
 16321 ttagttatcc tgcctggaaa gtgctgaagt cagattacat aggaccatga agtaagactg
 16381 tagtaaagaa gagtacatta aggaaaaatt ataaaaaggc tatttgctag accatacact
 16441 cagtgttctc taggaaatag atttataaca tcacattgta aaatatttga agtgtctttt
 16501 tttttttttt tgagacaggg tcttgctgtg tccccaggc ttgagtgcag tggcatgatc
 16561 atagctcact acagccttga actcctgggt tcaagtgatc ctcccatgtc agccccctga
 16621 atagacagga ctacaggcgt gcgctagcta tttatctgt ttgtttgtag agacagggtt
 16681 tcactatgtt gcccaggctg gtctgaaact cttggcctca agtgatcctc tcaccttggc
 16741 cttccaaggt gctgggatta cagggtgtgag cactgcatc cagccaaaaa aatgtctttt
 16801 tttttttttt tttttttttt tgtgagatgg agtctcgctc tgcgcctag gctggagtgc
 16861 agtggcgtga tctcggtca ctgcaagctg cgcctcccg gttcacgcca ttctcctgcc
 16921 tcagcctccc gagtagctgg gattaccagc gccaccaat aggcccggt aattttttgt
 16981 gtttttagta gagacgggtt ttcactgttg gccaggatgg tctcgtctcc tgaccttgtg
 17041 atcaggatca agtgattctc ctgcctcagc ctcccgagta gctgagatta cagggttgca
 17101 tcaccacacc tggctaattt tttgtatttt tagtagaaac aaggtttcac caggttaacc
 17161 aggctggtgc cgaactcctg aggtcaggca atccacctgc ctccagcctc caaagtgtg
 17221 ggattacagg tgtgagccac catgcccagc cttaaagggtc tttttattac tgttatattc
 17281 ttcaacaata acatttggaa gaatgtatca aattgtacta gggatacctt aatcaaaatc
 17341 atatacatgt attatagaag gaataaatgt aaacacacaa gttattaatc ttattaaagc
 17401 gccacatagt acttaataca tatatgttgt ttccctttga aaaagtotta catgaacatt
 17461 ggctctgtga aaacaagacg aaatttccaa catgccaata tggttttatt tcaaggcagt
 17521 tgaaataaaa taatagcaat tttgctggtc ttagaatatt tttaaaacaa gttttccct
 17581 gcaactatgt tctttccttt cttccttttt cttcttctc ttttctttct ttctctctct

Figure 15 (cont'd)

17641 tttcatttgt tctttctttc tttccctttt ttttttttaa tggagtctca gtctgttgcc
 17701 caggctggag tgcagtgggtg tgatctcagc tcattgcaac ctctacctcc tgggttcaag
 17761 caattctcct gcctcagcct cctgagtagc tgggattaca ggtgggtgcc accagaccca
 17821 actaatttta ttttatttta tttttttttg gtagggacag gatttcgtca tgttggccag
 17881 gctgggtctca aactcctgac ctcaggtgat ccacccgcct cagcctccca aagtgtggg
 17941 attacaggca tgagccacca cgcccagccc ctacaactat tttccatccc ttaaaaaaaa
 18001 ttatgtaaag tatactgaga cataaacata atttcaatga cataaatcat attagaggct
 18061 gagagccaag acatgtccct gtaaccttat tagcttgtat gaactgtaag atcaaagttt
 18121 attgtccagc tctaataatat atagaaagtt aagcaactat ttattatttt tatgtacct
 18181 gtgattttca ctgattctgg aatatgctga ctttttttct ctttaaaata atttcagGAG
 18241 CGGACATGAT AAGCATACAT AATGAAGAAG AAAATGCTTT TATACTGGAT ACTTTGAAAA
 18301 AGCAATGGAA AGGCCAGAT GATATCCTAC TAGGCATGTT TTATGACACA GATGgtaagt
 18361 gatatttacc tcgtgggacg tgactttgtt gttctttttt taatgtagca aaactgatgg
 18421 cttttcaatt ctctggttca agttgatgat tcctgtggcc tccaggtgtt aaattttcag
 18481 tgtgcaccta tgatcatacc acagcttgta tctgcatagc tcaatgagtt acacagatga
 18541 aagccacagt tgattcttgt ctggattaaa atgtggctct aaggctcagt atttttgtaa
 18601 tatagcatga tcataaaggt aagtattagt gtctgcaact aataggctaa ggatagacta
 18661 aattatcacg gttctattat ataaacatat ttatcattac tgtagacaaa gtacatatgt
 18721 acaaatataa aagtacatat gtaaacattt tcaaataaaa tgaaattact aaggttacta
 18781 ttaatattta actatttttc ttgacttttt tcccatgaga atattataca tgtatatatt
 18841 tttgcgaaaa ttggatcatc ttcagaaacc tcttaaatcg atagcttttg atgatttggc
 18901 tgtacacagg atatattcct ccttctaatt ttaatcctac aatcagaagt ttagaccaga
 18961 cataccttag taactttcca cctttaatcc tacacccttt ttggcttgaa ctctttttaa
 19021 aactgtcata atgttgaaaa tattccttaa ttgacagATG CGAGTTTCAA GTGGTTTGAT
 19081 AATTCAAATA TGACATTGA TAAGTGGACA GACCAAGATG ATGATGAGGA TTAGTTGAC
 19141 ACCTGTGCTT TTCTGCACAT CAAGACAGGT GAATGGAAAA AAGGAAATTG TGAAGTTTCT
 19201 TCTGTGGAAG GAACACTATG CAAACAGCT Agtaagtatg accgaaggtg tttttccatt
 19261 ctagaagggg cagagaaagt aggactgggt ttaaaataat tttgagataa gtgtgcctca
 19321 ataaatagaa taaggctagg cacagtggct cagcctgca atcccagcat tatggtaaac
 19381 tgaggcactg gattgcttga gcgcaggagt tgaagaccag cttgagcaac atggcgaaaa

Figure 15 (cont'd)

19441 ctcatctcta caaaaaatac aaaaatcagc tgggcatggt ggcgtgcacc tgcggtccga
 19501 aatacatggg agcctgaggt gggaggatca attgagcctg ggaggttgag gctgcagtaa
 19561 gcctgggcaa cagagcaaca ctctgtctca aaaagaaaaa aaaaaataga gggaataaga
 19621 cttcagaata tattaatagg atggtttgct cttaagtctc ttggaactca aattgtaatt
 19681 ctcttacatt taggaggtaa ggccagatca catgaaatag gcatactttt attctgtctg
 19741 cttagtgttt ccaagaggtc aaaaatttct tgttcagagg aattattata atctctttgc
 19801 atgtgatttg agtgagcaga agtggtgaag agtaatcatg tataattcca gaattctcgt
 19861 gttactttac aaggaattag attctccata agaacatcct ttgtttaggc aaacaaaaac
 19921 tacatcatag tttataattt atttggaatt aaaatgtttt cttctgaccc gtcagaaggt
 19981 tttttttttt tttttttttt tttttgcgat gcagtctctc totgtcgccc aggctggagt
 20041 gcggtggcgc gatcttggct cactgcaacc tctgcctcct ggcttcaagc gattctcctg
 20101 cctcagcctc ccaagtagct gggactacag gcacccgcca ccatgccggg ctaatttttg
 20161 tatttttttag tagagatggg gtttcacat attggccagg ctggtctcga actcctgacc
 20221 ttgtgatctg cccacctcag cctcccaaag tgtaggatt acagacgtga gccactgtgc
 20281 ccggcccaga aggtttttta atgaacagaa gttatcctgg ccacaacag tattttgatg
 20341 ttatttggtta aaacactaca cagtttggtta ttctaagttt tagaaagtaa ctgttttctc
 20401 attaaagaaa attaaatttt caaatgtgg gctgggtaca gtggctcatg cttgtaatcc
 20461 cagcactttt tgaggctgag gcagcctggg tcaacatagc aagaccacca tctctacaaa
 20521 aaaagttttt agttttttta atgtttcaaa atatgaattt aggggtgctta aaacatgata
 20581 taaacaacca tttccccatt ttgcatcctc agtattttcc cttctactt caactgtaaa
 20641 caaaaactcc acatcctgct ttatttcctt tctttacata tggaagtatg tacatttctt
 20701 tacttgctac agcaggatcc ttgactactg ttagttttac agtgattatc aaaatgttcg
 20761 tcatagtttt atggtagcag tattcaactt caaatatttg ttttttaaaa aattggttct
 20821 tttcaggttc tgcacctcag ggtgocatta cataaacaaa gtttttaatt aaactataac
 20881 ttcaaaacat cagaaatagt gagtacatcc atactaagggt agttagggtc acagttgttt
 20941 aattttatga catttgtttt ctagactctc caaccagaat cctctttttt cctttacctc
 21001 attattgtct tttcctcaag atcccgatc cttttccacc aaccaagcta atgcatgttg
 21061 ttagccctct acatctttct ttaaaaacta agttcaaat agacaacaga gacaactaat
 21121 gaggcaaaga aatatggatt ttaggctatg aatatattga tattaagcta ctaataaaag

Figure 15 (cont'd)

21181 ggttttat tttt taatgattgt gaacatgttt aaagtcaatc ctataataaa gcataattaa
 21241 attctaattt ttatttttctt ttgtatttta gTCCCATACA AAAGGAAATA TTTATCAGgt
 21301 aagtaatgat ttgggtcttta aattttttccc acaattaaaa atatatcaaa attctggcat
 21361 attaaaatac attacagatc ccttttttaa attatgtaat ataaagtaga acaattttta
 21421 taagaatgta gaaagggtctc ttagtaataa gactcaacat tttaaataata ttctacaata
 21481 tgtagttttg tctggcttct tttactcggg aatatttttt tagattcatc tgtgtgtgtgc
 21541 acattcactg aatttttttcc ctaagtgtca taatacttta taaatatatc atatattgtc
 21601 cattctcttg tttatggata ttggatcac ttctagtttt aaactaattt gaatagaact
 21661 gcctatgaac attctccac atcttctttt ggacctatgt tctcattttc tttgagtata
 21721 ttctagaaag tagaaagctg ggtcataggg caagtatata tatttagatt tattagaaac
 21781 caccaaataa tttttcaaaa tgcttgaatc atgttactac tggcagtgcg tccaagttcc
 21841 atttgctcca tggttcatccc atgatggat tgtcaattta ttttttagcca ttcagatcag
 21901 gtgtgtagtg atcttcttgt ggctttaatt ttcattttacc tgataatgat gttgagcacc
 21961 tttcagatga ttattttatt gtatatcttt tgtgaaaagg cttttaccca tttgoggagt
 22021 gcagtgggtg gagcttgact caccgcagtc ttgacctcct gggctcaagc gatacttcca
 22081 cctcagcctc ccaagtagct gggactacag gtgtgggccg ccatgccag ctaacttttt
 22141 ttgtacagat ggagtttcac catgttacc aggctagtct caaactcctg ggttcaaagg
 22201 atccaccgc ctcagcctcc caaagtgtg agattacagg cgttgggccg ccatgccag
 22261 ccaccatat tttttttgag ttgcctatat ttttggtagg aatttttaaa acaaattttg
 22321 tttcttttaa tttggatatg ggccgggcta aataatacaa aacttagccg ggcacgggtg
 22381 cgggcgcctg taatcccggc tacttgggag gttgaggcag ggagaattgc atgaatttgg
 22441 gaggcggagg ttgcagtga ccgagatcac gccactgcc tccagcctcg gcgacagagt
 22501 gactocatct cacaaaaaaaa aaaaaaaaaa aaaaaaaatt ggatgtgagt cctttgccag
 22561 ttttctat tttgggttact acgatagaac tatgacagag gaggagaaaa gaagtgttgg
 22621 gtttgtgtgt atacaggaat tacatcctca ttaatctata ggaagaagac aataaataac
 22681 aagcattagt gtggatatgc agcaattgga actcttgtgg taggaatgta aaatgggtgca
 22741 gcctctgtga aaaacagtgt ggtggttctt caaaaaaaat tattaaaaga attaccgtat
 22801 gatccagcaa ttctgagtat gtatcccaa taactgaaag caaggactct ttaatatccg
 22861 tacaccatc tgtttgat tttgtgtat atgttcatag catcatttgc catagccaaa
 22921 aggtggaagc aaccaagtgc tccactgatg aagggataaa caaatgtaa tctgcacata

Figure 15 (cont'd)

22981 caactgagta tcatttagcc ttaaaagaga agaaaattct gacacgtgct acaacatgca
 23041 taaacctgaa ggacattagg ctaaacaaaa taagccaggc acaggccggg cgcagtggct
 23101 cagcctgta atcccagcac tttgggaggc tgagaccggt ggatcacctg aggtcaggag
 23161 tttgagacca gcctggccaa catggcgaaa tcccgactct actttaaaaa aaaaaaaaaa
 23221 aaagttgaaa cccggaggca gaggctgcag tgagccggga tcaactccact gcactccagc
 23281 ctgggcgaga cagagcaagc ctccatctaa aacaaaacaa aacaaaacca ccacaaaaaa
 23341 aaaagaaaaa taagccagtc ataaaaggcc aaattctgta taattcttac ctatagtatg
 23401 aggtaccta agtagtcaac ctaccaaga aactctttgc caagggttag gtcaggaaga
 23461 aatgggagtt taataggtac agtttccatt ttacaaaatg agttgttctg tgaatggatg
 23521 gtggtgatgt agcacaacga agtgaatgta cttaatgcta ctgcacacct aagatggtat
 23581 ttgttacatg tatttcttta aattacattt ttaaaaaatc aagcagcgga agcatgttat
 23641 ttagacatgg agacagataa atagctgaag caacagtagt agttaacttt aaggaatgga
 23701 tgttcagggtg agtagtggag caggagcaca gtattttcac tacgtatctt ctagaactat
 23761 gacttttaag ctacgtaaat gtattacttt ggaaaaaata aagatacaca taagttggaa
 23821 catttagaaa aaaataggtc tgtggcttca aaaacgaata gttgaaagat ctggcaacat
 23881 atgggtcttca gactacaaga aaagtaatct ctgaattcat tacatgtatg catgtatata
 23941 tgtgcatgta aatctgtatt aaatatgtgt atgtaattta gtgagtaaac actatgtgtc
 24001 aggctttctc ctaaagttag acattgaaga cagagcaatg aacaaaacaa aagcctctgc
 24061 tctcaagcat acattctagt ggggaagggt aaacaaaact atgtgagatg gtgacacatc
 24121 ctatagggaa aacaggcaga taaggatgaa ttccagtgc agaagggagg tgttgcaactt
 24181 tattttttatt ttagtacag tggccaggga aggcctcatt taataaggcc atgattttgc
 24241 ataatagaaga cctaaagtca aagtgaagc ctgtcatgta gatagggtt aggccttagtc
 24301 tgactttaag gagtaaaaca gtagagaaca tggagttgaa gcagcaagga aacaacccaa
 24361 cagttaagt tagctgccat cttggcaaac agggagttcc cttcatacc aagggttaagc
 24421 tggaagactc cttgggaag aatactttca acagaattaa ggtgtccata gtcggatgca
 24481 cctagtgtgg caagcacaca ggaaaggtoa agttagtcca agctgggttc agcaaagggtt
 24541 actggagagg atgcaggagt taaatottca aggataagta gacatcaggc aggagacaga
 24601 ggacagggtta tctgaggtga caaatcagga ccaagggtgaa gggttgaatt tttgctgtca
 24661 cttactaaat ggacttgggc aagtcattta aaccctgtgc ctgagaatta aatgcacagt

Figure 15 (cont'd)

24721 tggcactctc acctgaggct acagcctaac aaaatgtttc atatagtttt tgaggtggat
 24781 tatgtatagt tcgggcctca gatgatcagt gttagaacta gagcgtaag gtagcagtca
 24841 gatagataaa taggaaacag aagaaaaatg tgtagtcttc acaatttata gagaggaagt
 24901 ctataaattt ccagattggt tgactggaca gtggctattt atttgcagga attcagggtta
 24961 gaagaaattt ggaagtaggg ctacacacac atatttatct atggatttac ataaaagact
 25021 tgaatggttg agatcaacca tggaaagctt tgagtcaca aagatgacta ggaagcagtc
 25081 gtctgaaaaa tagagcagtc agggaagcca agtgagtagg agataacttc aaggctggac
 25141 ggctaacaat ctagttgccc caggatgaac taaaacatcc acgtgtttta gcatgtagtc
 25201 ataaagagat cattggtgac ctctgccaca gaaatttctg aagaaatggt gagaaaatgg
 25261 attaaatggg cttaagaaat gaaaaagtga gcttgtttca gtgtttgctg tttcctcaag
 25321 taaggaacat tgtaggcta aaaagtattt ttcctaaatt ttgtttcttt aaaaaaaca
 25381 ggatttcatg gtaaatagct attatatgct gtcaagcaag caatggacct ttcctttaat
 25441 taatgaggta gataatacat ttcctaattg aaaactatcc taacctccag atataaacta
 25501 cacattgttt taatacactg cttatcagtt gccttgacaa ttgactttgt cacacatttt
 25561 agtagtatgc agctagctaa ctaaaacccc tggaggcaac tttggctaaa ggtcacttgc
 25621 agaatgtgaa aagcagcata tatacttact gtgtctcgcc catcttggac actgtccagt
 25681 tcttaggata cccggtcttt taaagctatt atgattgagt ctgtaaatat ttctcaatta
 25741 ctatgatctt tcagactttt ctatattact atcatgtaat tcctatttaa agtagatgct
 25801 accgattatg aagccattat tgtacaatca ttagtacact gaaataaagt gtgttcacac
 25861 tggtaaagtt gaggttctac actgaaaatg gactatgtta attctaataa aactaactac
 25921 ggggctgggc acggtggccc acacctgtaa tcccagcact ctgggaggcc gaggggggca
 25981 gatcacttga agccaggggt ttcggaacca cctgggcaac atggcaaac tgtctctact
 26041 aaaaatacaa aaattagctg gacatcatgg cgtgcgctg tcatctcagc taccagggt
 26101 gacacatgag aatccctggc acccagaagg cggaggttgc cgtagocaaa aactatggaa
 26161 gaaccccat tgaactcagt ttacggaatt ctgggctttt tttcatttta atgtctttaa
 26221 taataccacc accaaatoca ccctcacacc ttaccaaatc tttactacca aattttattt
 26281 cagaattaaa aagatagtto acttggggcc atttcctcac tcctcccaa aaatcctgtc
 26341 aatatttgaa aagtatcaat ggctctccct cactttaaca aataatttgg ccaaatttct
 26401 ctactaato ttaaattott ccagggtotca ttttaacaag caccagttga aataatgggt
 26461 attatgaata tatttaataa taaaaaatct gtcaaaataa ttctgaaaag ttttcacatt

Figure 15 (cont'd)

26521 ctttagagtc gattactata cataatacaa gtacctgccc aaaagtatgt ttgttctcct
 26581 aaaccagggtt attttcctca atttattaaa ctggattctt atagaaagat tacaagggtt
 26641 tgaataggca agaactgcaa agttgtgcat acttacagaa atttagggaa acacacaaag
 26701 aatgaatgaa tgcaaagaca cacaaaacca ggtactttac tgcaggctctt ggtgtttttt
 26761 tcagttaaac aaatcttaaa tccccaaagc cagggtgaacc attaaacctc aataatgtaa
 26821 cacattatct aaatactaga attcctaaag ggaacagtag gtctgaattt gtagtcttag
 26881 atcagaaagt aaagcgaagg aagacaaact ggagcatggt atatacttgc gtgatttcca
 26941 ctatggggtc ttcagtagag tggagaagtg cacaacttcc tagaaaattt gagtactatt
 27001 cttcaggcta agaaatataa atcttgtag taacaaatgc gaaatttttg gttttctcat
 27061 cagtgtggga aattctcaac acagagaaat gtttacacaa aactacagtt gtgctcatca
 27121 aaatatactt gcaacttgtg taccctaatt tcccaaatac tcttttgtct tttccttttc
 27181 agATAACCAC ATTTTAATAT CAGCATTGGT GATTGCTAGC ACGGTAATTT TGACAGTTTT
 27241 GGGAGCAATC ATTTGGTTCC TGTACAAAAA ACATTCTGAT TCTCGTTTCA CCACAGTTTT
 27301 TTCAACCGCA CCCCAATCAC CTTATAATGA AGACTGTGTT TTGGTAGTTG GAGAAGAAAA
 27361 TGAATATCCT GTTCAATTIG ACTAAGTTTT TGGTAATCTT GCACTAAGAC ATCAACAAAA
 27421 TGCCCTGGCA GAGATAACTT GGGAAAGATT TTAATATAAA ACTTGACATT GGATATTAGA
 27481 GCTTTAATGG TATTCCTTAT TCCAGTAACA TTTTATGTA CTCATCTGCT GTGAAAAGTC
 27541 TTTAGGTTCA TTAAAAAAC AGGTTTTAGA AATGATCTTA GATCTAATAT AGTGATTTTA
 27601 AGCATCCCGT CAAAGGCAGA ATCTGTCAC TGAATGAAGG AAAGCTTAAA GCCCAAGCAG
 27661 ATAAAAATAA AAGCCCAGCC TATTTGTCTT GCCTGCTGTA TCTTCCCTAT TTAGTTGACC
 27721 CACTTTAGTT TATATGTTTA TTAGTAAACA TGAAATGGGG AATAAGTGAT TTTAAGTACA
 27781 TCCCATACAT TTAAATATCT TTGATAATTG TTATTTTTTT GGCAGATAAT TCCTCTAGAA
 27841 TGTGTATCTT TTTATGATT AGATGAAGAA AATTTTACAA CTTTAAACAC CCCACACCAA
 27901 TTTTAGTTTC ATTACTTTTA CACACACCAT TTTATCACAA ATGACTCAAG TTTAATGAA
 27961 TGTTTATAAA TTATTTGAAA CAAAATATGA TCGCTGTGTC CAGGATGGCA TAGAGAAAGC
 28021 TGGCAATTAG GTTAACACTT ACATATTATA GTGCCCTTT AAGGATTTCT CTCTTGCCAC
 28081 CATACCTTTT GTACTTTCCC CTATACAAGA TGTATCTCAT TCTCCTCAAG CATTTATAAA
 28141 TTTTTCCTTC AATGACATGA AACTGTGCA AGCAAAAACC GAAGAAAAAC ACTTAAGTAC
 28201 AACTGTAGTG ACAGTGATCA AAGTTTTAG TGCATTTATT GTACATTTTA AGAAAAAGGT

Figure 15 (cont'd)

28261 GAAAATCATT TGGGGAGTAA AAAAATGAAA AAGCTGAAAC GAGTAATTTT CCTCACCATC
 28321 AATAAACCAA AAACAGGAAA GATAAAGAAT GTATAAATTT CACGTAAATT AGTCACGTAT
 28381 CACTTATCAA TGGGGATACG TTCTAAGAAA TGCATAGTTA GGAATCTTG TGTGAAAATC
 28441 AGCTTGTATT TACACAAACC CAGATGGTAG AGCCTATTTT GTCCCAAACC TACACAGCAT
 28501 GTTACTGTGC TGAATACTGC AGACAATTGT AACACAATAT TTGTGTATCT AAATATAGAA
 28561 AAGGTACAGT AAAAATATGG TCTACTAAGG AAACACTGTT CTATATGTGG TCCATTACTG
 28621 ACTGAAGTAT ACTGTCTAGA AGTCTGAGGC TCAAAGAAAA GTAATCCCTC TTCTGAATCC
 28681 ACACCCCATC AATTATCTTA CTTTCTTCTG GGGAGATAGA TAGATATACT ATCTCACTAG
 28741 CTTGACTAAT GGCAACAAAG TTCCAGCTTG TGTAGTCTCT TTTTATTGAC CACATGAATC
 28801 GAAAACACTC ATCACAATTA ATGGCACTAT CATTAATGAG ACATGAGTAA CTAAAAAGTG
 28861 ATAGAAAAC ATTAACAGTG CGGCTACATG GTACTGAAAA TGCAGGCATT ACACCAGCTG
 28921 TTACACAAGC ACAAGCATGC TCTGTAAGAG CTTTACATTT CTGAGATTTT GTATAGTGAT
 28981 TGAGATGTCT ATTTTATTAT TGATAGACTA TTAATAATGT CAATATTGAA CACTACCCTG
 29041 GAATTCCTGC CTGGTTTTCC TACCCAAATT GTACCACTCC TTGAAGAACT ACAGGCACAG
 29101 TAAAAAAAAT ATGGCGTATT ATGTGAACTA AAAGAGTTCT AAAGGAGTTC TTAAAGGAGT
 29161 GGTAGAATTT GGGTAGGAAA GTGATTAAGT CCAACTTAAA ACCAACAGTC TCAAACGTCT
 29221 ACAACTACAA TGTCCAATGA GCCACTAGCC ACATGAGGCT ATTTAAGTAA ATTTAGTTTA
 29281 AAATCCAGTT TTCGAATTAC ATTAGCCACA TTGTCAAGTG TTCAAATCAC AGGTGGTTAG
 29341 TGGCTACTGT ACTGGGCAAC ATACATTATA GAACATTTTC ATTATAGGAA GTTTTATTGG
 29401 GCAGTGCTGC TCTTAAATCC TACCTTCCAC TCAACTCCA TACAACCTTC TTTTGTACAT
 29461 TTTGATACTT TCTACCTAAT GGCAGCTCTT CCAAATAGC TGCTTTAAAC TCTGATTAA
 29521 TTTTCAATAT TTGGTTTCAT TTTTCAACAG GCCAAGAGGC CTCTGGTAAT GAAGTGCTAT
 29581 ATATATATAT ATGATGGAGT CTCCTGTGC TGCCAGGCT ACAGTGCAGT GGCTCGATCT
 29641 TGGCTCTCTC CAATCTCCGC CTGTCAGGTT TTCAAGCAAT TCTCCTGCCT CAGCCTCCTT
 29701 AGTAGCTGGG ACCACAGACA TCTGTCACCA CACCCAGCTA ACTTTTTGTA TTTTGGTAG
 29761 AGACGGGGTT TCGCCATATT GACTGGGCTG GTCTCAAACCT CTGACCTCA AGTGATCCAC
 29821 CCACCTTGGT CTCCCAAAGT GCTGGGATTA CATGCGTGAG CCACCACACT TGGCCTACAT
 29881 TTTTCTTTA TATACCAGAA CATCTATAAC AGGCACCTTA TCTACTCATT AGTGAAGAGA
 29941 TAATTGGATT ACACAGGCAG GCTTGTTTAC TACATCCAGA ATGTAGAAAC TGCTTTCTTC
 30001 AACATCTTGG TTCTAGCTAG TAATAACAAT ATAATTCTTT GGCAGATATT CAGAATAACA

Figure 15 (cont'd)

30061 TTTTAAACTA CATTTTCTTA GAAAATTGCA TTCTTGTAGT GAGCAGTGTA TGGTCTCTTT
 30121 TGTTCAGAAT TTAAACTGA TAACCAATGA AAGCCTTTTC TCTTATTCCT CTACCGTCAT
 30181 TTACATGATA ATCTGAAGCT AATATGACAA TATTTAAATA CTAAGTGGTA CTAGGGAAGT
 30241 ACAAGAATAC TGTAAGCTT AAGCCATTGT TATCACTGTC ATTTAGCATT TAATAACAAA
 30301 ACTATACAGA ATTATGTGCA TACCAATGAA TGTTTTGTAC CATCTAGTTA AATTTTTTAA
 30361 ATAAAGTTTT ATGGGTAAAG CAGaagacaa ctgtcatact gaattttatt aaaagtatat
 30421 atacttcaaa ttcaaagcat cccttaggac ccacagaata tattaaaaact accaccctta
 30481 aattttatat ttttgcttta agacagacaa tgcaaaggta actggcaaga ggtgagcaaa
 30541 tgttttagaa catttatatt attgcttaaa atgagatttg aaattgtaat aaaattcttg
 30601 gttatgaagt ctgatgtctt ctttgagcac cagtttaaaa ggaaacattt caaacagtaa
 30661 aataaatcag tgtgtacttt attttgagcc aatgttttac ataagaccaaa caaactaagt
 30721 gtgggcaaac tgttcaatca cttttgagaa attacatggg tcttathtag gtttgaaaaa
 30781 gtagtttggt gccataacat cagaccttaa ggtgttttaa agtgtatcct aagggtactg
 30841 acagaagaaa aatacagtgt tatggaagta tacacaactc atgaccacac agtatagatc
 30901 cattcatggg gaataatggt catctgttct ccaaaggtag tgaaaaatat taagtcatca
 30961 aataaatgct cagaattacc aaggaacagt taaaaaggac caggatccaa acagggttatt
 31021 tatatatatta tctataaaca agtgacaaca ctaaaaaaca cattgaaaac cagtgtttta
 31081 aactctgaat gtgggattta aaaatattcc attaacttga gattgcaata atttttttta
 31141 accaaatagc atttgactgg caagtctcat ataatttaca gctgtaatat tcctaaaagg
 31201 aatatctaca tactatagcc tatcaaatat aatctgcatt ttgcaaatca atacaaaaat
 31261 ctatccatca tttatacatt ttatatattat atacttttta aaaattagat tttattgcta
 31321 ggtgaatttg gaattcaaatt taaatttgga aacttaataa tgctcttctc ataaccttct
 31381 cccattctt tttttaattt ttaaacactg gaagcaaatg attatcaaaa tgagactgca
 31441 acttaaggca ttttaaaaga aaaaataatt aggtgccata tagcatttta tttcaaaagt
 31501 atattttgtc ccacttttct cactagcaag agtaaaacac aaaccttttt tcataaatat
 31561 gactacagta atcataacac aaaaaagggt tgataggcat tgcttagata tttaaaacaa
 31621 gggtaatact ttcccactca cctaaaagaa aaaacctttt tgattaccag tttataaaca
 31681 tcggatttgc tatgttaaaa agtccagcag aattttaatt cagcaaacact ggagaatgaa
 31741 tatatatata caggcatata tgtgtatgta tatattcatt ttatatatag tcaatgtatt

Figure 15 (cont'd)

31801 tattaggcat tccccacaa aagtaattta tatttaattg ccatttttaa taaacactta
31861 tgttcacaga tcatccatct gtcttatatg aagttaggca atatcaaagc tcctgttatg
31921 gtctccgtct tcttcggaat catcctctga agctgttgaa agaaaacagg atgatcaaga
31981 atgatttttaa gggggataag aatgggaagt gttaaataatga agccagaaca gcaatgactt
32041 gtaaaaacaa aaatcccaat ttagtatatt gtttgatcaa aatgataagt tgtatgacag
32101 ggtaggggtg gtctgcctgt gggatgatacc caaccacaat tctccccgcc cccacaccgt
32161 tttgtaagtgt tatatcaatt ttataaaaa tgaaagtgtg taaaaatgtg gttcaagagc
32221 atcttctaaa atgtttctga gatcaatctg tgttcataatg agctaataat atataaacac
32281 taggaaaaaa gtcaacttaa ggcaagtgtc ctcacacacc tgagtataat ctggcttatt
32341 accgctgcat gtttggtgca tccgatgaga atgaaaagaa gtgtacatag aataagaggt
32401 tatgggtgtt ctgcaattt acatcaaagc tatgtctata caatgccaag ataaaagtgc

FIGURE 16

Annotated DCL-1 sequence.

1 CTCTCCGGCCGCGCAGCCGCTGCCGCCACCCGCACCCGCCGCTC [Signal peptide] ATGCTCCGGGCGCGCTGCCCGCGCTCCTGCTGCCGTTGCTGGGCC
M L R A A L P A L L P L L G L 16

91 TCGCCGCTGCTGCCGCTCGCGGACTGTCCTTCATCTACTTGGATTCAAGTCCAAG ACAGTTGTTACATTTTCTCCAAGAGCCATCAAG
A A A A V A D C P S S T W I Q F Q D S C Y I F L Q E A I K V 46

181 TAGAAAGCATAGAGGATGTCAGAAATCAGTGTACTGACCATGGAGCGGACATGA TAAGCATACATAATGAAGAAGAAATGCTTTTATAC
E S I E D V R N Q C T D H G A D M I S I H N E E E N A F I L 76

271 TGGATACTTTGAAAAAGCAATGGAAAGGCCAGATGATATCCTACTAGGCATGT TTTATGACACAGATGATGCGAGTTTCAAGTGGTTTG
D T L K K Q W K G P D D I L L G M F Y D T D D A S F K W F D 106

361 ATAATTCAAATATGACATTTGATAAGTGGACAGACCAAGATGATGATGAGGATT TAGTTGACACCTGTGCTTTTCTGCACATCAAGACAG
N S N M T F D K W T D Q D D D E D L V D T C A F L H I K T G 136

451 GTGAATGGAAAAAG GAAATTGTGAAGTTTCTTCTGTGGAAGGAACACTATGCAAAACAGCTATCCCATACAAAAGGAATATTTATCAG
E W K K G N C E V S S V E G T L C K T A I P Y K R K Y L S D 166

541 ATAACCACATTTTAAATATCAGCATTTGGTGATTGCTAGCAGGTAATTTTGACAG TTTTGGGAGCAATCATTTGGTTCTGTACAAAAAAC
N H I L I S A L V I A S T V I L T V L G A I I W F L Y K K H 196

631 ATTCTGATTCTCGTTTCACCAAGTTTTTCAACCGCACCCCAATCACCTTATA ATGAAGACTGTGTTTTGGTAGTTGGAGAAGAAATG
S * D S * R F T * T * V F S T A P Q S * P Y N E D C V L V V G E E N E 226

721 AATATCCTGTTCAATTTGAC TAAGTTTTGGTAATCTTGCACTAAGACATCAACAAATGCCCTGGCAGAGATAACTTGGGAAAGATTTTA
Y * P V Q F D * Internalization? Late endosome targeting? 232

811 ATATAAACTTGACATTGGATATTAGAGCTTAAATGGTATTCCTTATTCAGTA ACATTTTATGTACTCATCTGCTGTGAAAAGTCTTT
901 AGGTTTCATTAATAAAACAGGTTTATAGAAATGATCTTAGATCTAATATAGTGATT TTAAGCATCCCGTCAAAGGCAGAAATCTGTCACTTGA
991 ATGAAGGAAAGCTTAAAGCCCAAGCAGATAAAAATAAAAGCCAGCCTATTTGT CTGCTGCTGTATCTTCCCTATTTAGTTGACCCAC
1081 TTTAGTTTATATGTTTATTAGTAAACATGAAATGGGGAATAAGTGATTTTAAAGT ACATCCCATACATTTAAATATCTTGTGATAATTTGTA
1171 TTTTGTGGCAGATAATTCCTCTAGAAATGTGTATCTTTTATGATTTAGATGAA GAAAATTTTACAACCTTTTAAACACCCACACCAATTT
1261 TAGTTTCATTACTTTTACACACACCATTTTATCACAATGACTCAAGTTTAAAT GAATGTTTATAAATATTTGAAACAAAATATGATCG
1351 CTGTGTCCAGGATGGCATAGAGAAAGCTGGCAATTAGGTTAACACTTACATATT ATAGTGCCCTTTAAGGATTTCTCTCTTGCCACCATT
1441 ACCTTTTGTACTTCCCTATACAAGATGTATCTCATTCTCCTCAAGCATTTAT AAATTTTCTCCTCAATGACATGAAAACCTGTGCCAAGC
1531 AAAAACCAGAAAAACACTTAAGTACAACCTGTAGTGACAGTGTCAAGTTTAT CAGTGCAATTTATGTACATTTTAAAGAAAAGGTGAA
1621 AATCATTGGGGAGTAAAAAATGAAAAAGCTGAAACGAGTAATTTTCTCCACC ATCAATAAACCAAAAACAGGAAAGATAAAGAAATGTA
1711 TAAATTTACGTAATTTAGTCACGTATCACTTATCAATGGGGATACGTTCTAAG AAATGCATAGTTAGGGAATCTTGTGTGAAAATCAGC
1801 TTGTATTACACAAACCCAGATGGTAGAGCCTATTTGTCACCAACCTACACAG CATGTTACTGTGCTGAATACTGCAGACAAATTGTAAC
1891 ACAATATTTGTGTATCTAAATATAGAAAAGGTACAGTAAAAATATGGTCTACTA AGGAAACACTGTTCTATATGTGGTCCATTACTGACT
1981 GAAGTATCTGTCTAGAACTGTAGGCTCAAAGAAAAGTAATCCCTCTCTGAAATCCACACCCCATCAATTATCTTACTTTCTCTGGGG
2071 AGATAGATAGATATATCTCTCACTAGCTTGACTAATGGCAACAAAGTTCCAGC TTGTGTAGTCTCTTTTATTTGACCACATGAATCGAA
2161 AACACTCATCACAATTAATGGCACTATCATTAATGAGACATGAGTAACTAAAAA GTGATAGAAAACATTTACAGTGCCGCTACATGGTAC
2251 TGAAATGCAGGCATTACACAGCTGTTTACACAAGCACAGCATGCTCTGTAAG AGCTTTACATTTCTGAGATTTTGTATAGTTGATTGAG
2341 ATGCTATTTTATTATTATGATAGACTATTACTAATGTCAATATTGAACACTACCC TGGAATTCCTGCCTGGTTTTCTTACCCTAAATTTGTAC
2431 CACTCCTTGAAGAACTACAGGCACA GTAAAAAATATGGCGTATTATGTGAACATAAAGAGTTCTAAAGGAGTTCTTAAAGGAGTGGTAG
2521 AATTGGGTAGGAAAGTGATTAAAGTCCAACTTAAACCAACAGTCTCAAAAGCTC TACAACCTACAATGTCCAATGAGCCACTAGCCACATG
2611 AGGCTATTAAAGTAAATTTAGTTTAAATCCAGTTTTCGAATTACATTAGCCAC ATTGTCAAGTGTTCAAATCACAGGTGGTTAGTGGCT
2701 ACTGTACTGGGCAACATACATTATAGAACATTTTCAATATAGGAAGTTTATTTG GGCAGTGCTGCTCTTAAATCCTACCTTCCACTCAAC
2791 TCCCATACAACCTTCTTTTGTACATTTTGATACCTTCTACCTAATGGCAGCTCT TCCAAAATAGCTGCTTTAAACTCTGATTTAATTTTC
2881 AATATTTGGTTTCATTTTTCACAGGCCAAGAGGCCTCTGGTAATGAAGTGC TATATATATATATATATGACGGAGTCTCACTGTGCTGCTG
2971 CCAGGCTACAGTGACGTGGCTCGATCTTGGCTCTCTCCAATCTCCGCTTTCGAG GTTTTCAAGCAATTTCTCCTGCTCAGCTCCTTAGT
3061 AGCTGGGACACAGACATCTGTACACACACCCAGCTAACTTTTGTATTTTGG TAGAGACGGGGTTTCGCCATATTGACTGGGCTGGTC
3151 TCAAACCTCTGACCTCAAGTGATCCACCCACCTTGGTCTCCCAAAGTGCTGGGA TTACATGCGTGAGCCACACACTTGGCCCTACATTT
3241 TTCTTTATATACCAGAACATCTATAACAGGCACCTTATCTACTCATTTAGTGAAG AGATAATTGGATTACACAGGCAGGCTTGTTTACTAC
3331 ATCCAGAACTGAGAACTGCTTTCTTCAACATCTTGTCTAGCTAGTAATAAC AATATAATTTCTTTGGCAGATATTGAGAAATACATTT
3421 TAAACTACATTTTCTAGAAAATTCATTTCTGTAGTGAGCAGTGATGGTCTC TTTTGTTCAGAAATTTAAACTGATAACCAATGAAG
3511 CCTTTCTCTTATCTCTACCGTCAATTTACATGATAATCTGAAGCTAATATGA CAATATTTAAATACTAAGTGGTACTAGGGAACAC
3601 AGAATCTGTAAAGCTTAAAGCATTTGTTATCAAGTGTCTATTAGCATTTAATAAC AAAACTATACAGAAATATGTGCATACCAATGAATGT
3691 TTTGTACCATCTAGTTAAATTTTTTAAATAAGTTTTTATGGGTTAAGCAG